

### **REMARKS**

Claims 1-47 are pending. Of those, claims 1, 24, 32 and 39 are independent. By this reply, claims 44-47 have been added.

### **THIRD REQUEST, INITIALED FORMS PTO-1449, OCTOBER 30TH IDS**

On October 30, 2001, Applicant submitted an Information Disclosure Statement (IDS). At this time, Applicant has not received copies of the initialed forms PTO-1449 associated with the October 30<sup>th</sup> IDS, despite having requested such with the previous two responses. Accordingly, Applicant, for the third time, requests copies of the initialed forms PTO-1449 as confirmation as the references cited therein have been made of record.

### **FIRST REQUEST, INITIALED FORM PTO-1449, SEPTEMBER 13<sup>th</sup> IDS**

In addition, Application submitted another IDS on September 13, 2004. At this time, Applicant has not received a copy of the initialed form PTO-1449 associated with the September 13<sup>th</sup> IDS. Accordingly, Applicant requests a copy of the initialed form PTO-1449 associated with the September 13<sup>th</sup> IDS.

### **FIRST REQUEST, INITIALED FORM PTO-1449, EXAMPLE USEAGES OF "MIRROR"**

Lastly, Applicant submitted a PTO-1449 listing examples of how the ordinarily-skilled artisan would give weight to the term "mirror" (and variants thereof) as part of the response submitted on August 3, 2004; see page 14 thereof. At this

time, Applicant has not received a copy of the initialed form PTO-1449 listing the examples. Accordingly, Applicant requests an initialed copy of the form PTO-1449 listing the examples.

### **§ 102 Rejection**

Beginning on page 2 of the Office Action, claim 24 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,654,752 to Ofek (the '752 patent). Applicant traverses.

The '752 patent discloses a data processing network with local and remote systems; see Fig. 1. Local system 10 and remote system 11 are essentially identical, and are connected by a communications link 12; see lines 45-55 of column 7. Communications link 12 is not discussed in any detail. As such, it is reasonable to only to view communications link 12 as a generic type of communications link.

The '752 patent describes its distinctions over its admitted art as including an ability for remote system 11 to disconnect from local system 10 and then operate independently, and then for remote system 11 to reconnect and resynchronize with local system 10; see lines 23-30 of column 9. The entirety of the '572 patent treats remote system 11 as representing the mirror storage for local system 10. Remote system 11 never sends a mirror storage request to local system 10.

Independent claim 24 recites sending a first local mirror storage request from the local storage server across the first connection to a remote storage server, and sending a first remote mirror storage request from the remote storage server across a second link to the local storage server. Applicant is willing to

assume for the sake of argument that sending of a first local mirror storage request is disclosed by the '752 patent. However, a distinction of claim 24 over the '752 patent is sending a first remote storage request from the remote storage server to the local storage server. Again, nothing about the '752 patent suggests, much less discloses, that remote system 11 could send a remote mirror storage request to local system 10.

In view of the foregoing discussion, §102(e) rejection of claim 24 over the '752 patent is improper and Applicant requests that it be withdrawn.

#### **§ 103 Rejection, '752 Patent Taken None**

Beginning on page 4 of the Office Action, claims 1-22 and 25-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over the '752 patent. Applicant traverses.

Regarding independent claim 1, the Examiner acknowledges that the '752 does not teach the use of a heartbeat signal. Yet the Examiner considers this so well known that Official Notice is taken that heartbeat signals were known. And the Examiner asserts that one of ordinary skill in the art would have been motivated to modify the '752 patent to employ heartbeat signals. More particularly, the Examiner asserts that one of ordinary skill in the art would have been "motivated to send a [heartbeat] signal instead of a given signal and an acknowledgment [thereof] because doing so would perform the same function [ ( ) ] and that is to check whether the mirror storage is online and that the data can be sent or that the data was received successfully [ ( ) ]." Again, Applicant traverses.

First, Applicant challenges the Examiner's assertion of Official Notice that the use of heartbeat signals as it relates to mirrored storage was well known as of the present filing date. Accordingly, Applicant requests the Examiner to supply evidence to substantiate the assertion or withdraw the assertion.

Second, the Applicant asserts that the Examiner's motivation is improper. It is well settled in U.S. Patent Law that there must be some reason, suggestion or motivation within the prior art to motivate one of ordinary skill in the art to adapt a first reference according to a second reference. It is equally well settled that such a motivation cannot come from Applicant's invention.

In a circumstance where the Examiner's asserted motivation corresponds to Applicant's, and the Examiner has not provided evidence that one of ordinary skill in the art had knowledge of the asserted motivation, a reasonable inference is that the knowledge of the asserted motivation improperly comes from Applicant's disclosure. Here, Applicant has disclosed periodic sending of a User Datagram Protocol (UDP) message as an example on how to provide heartbeat signals. Further, Applicant has indicated that an advantage of using UDP messages in this manner is that it eliminates the requirement of a constant signal connection between sender and receiver.

Coincidentally, the Examiner's motivation for adapting the '752 patent to employ heartbeat signals is that sending a heartbeat signal instead of a given signal and an acknowledgement thereof achieves the same effect albeit with one fewer signal (namely, one heartbeat signal instead of two signals in the form of a given signal and its acknowledgement signal). And, as noted above, the Examiner has

provided no evidence that the ordinarily-skilled artisan had knowledge of the asserted motivation. Applicant submits that the Examiner has improperly treated Applicant's disclosure as prior art, and improperly imputed knowledge of Applicant's disclosure to the ordinarily-skilled artisan, rendering the Examiner's asserted motivation improper.

Claims 2-22 depend at least indirectly from claim 1, respectively. Nothing about the Examiner's rejections of claims 2-22 cure the improper motivation discussed above regarding claim 1. Hence, the improper motivation implies to each of claims 2-22.

Claims 25-31 depend at least indirectly from independent claim 24, respectively. A distinction of claim 24 over the '752 patent has been described above in the traversal of the §102(e) rejection. Claims 25-31 exhibit the same distinction by dependency. Moreover, the improper motivation to adapt the '752 patent, traversed above regarding the rejection of claim 1, is also an improper motivation to adapt the '752 patent with respect to claims 25-31.

Independent claims 32 and 39 recite features similar to those of claim 1. Accordingly, the §102(e) rejection of 32 and 39 suffers from the same improper motivation traversed above regarding the §102(e) rejection of claim 1. Claims 33-38 and 40-43 depend at least indirectly from 32 and 39, respectively. By dependency, the Examiner has asserted the same improper motivation against claims 33-38 and 40-43 as against claims 32 and 39.

In view of the foregoing discussion, §102(e) rejection of claims 1-23 and 25-43 over the '752 taken alone is improper and Applicant requests that it be withdrawn.

**§103 Rejection, '752 Patent & '587 Patent**

Beginning on page 15 of the Office Action, claim 23 is rejected under U.S.C. 103(a) as being unpatentable over the '752 patent in view of U.S. Patent No. 6,633,587 to Bennett (the '587 patent).

As to claim 23, the Examiner acknowledges that the '752 patent does not disclose sending a UDP message. But the Examiner believes that this is taught by the '587 patent, and that it would have been obvious to modify the '752 patent according to the '587 patent. Again, Applicant traverses.

Claim 23 depends indirectly from claim 1. Hence, the improper motivation to adapt the '752 patent, traversed above regarding the rejection of claim 1, is also an improper motivation to adapt the '752 patent with respect to claim 23 by dependency.

Furthermore, the Examiner has focused Applicant's attention on the passage from line 55 of column 5 to 19 of column 6 in the '587 patent. Aside from the coincidently mentioning the term "mirror" and the acronym "UDP", Applicant observes nothing about the cited passage (or, for that matter, the remainder of the '587 patent) that represents a teaching and motivation for modifying the '752 patent as has been asserted. Rather, the passage focused upon by the Examiner relates to sending UDP messages via a connection oriented-protocol, e.g., TTP/IP, after virtual connection over a network is established; see lines 58-61 of column 5. As such, the passage focused upon by the Examiner contradicts the Examiner's

asserted motivation that use of UDP messages promotes efficiency by replacing the given signal and its acknowledgement with a heartbeat signal in a form of a UDP message. Again, the '587 teaches the use of UDP messages after a TCP connection has been created. Where is the improvement in efficiency if UDP messages are sent only if a TCP connection has been made? Applicants submits the Examiner's motivation is flawed and that one of ordinary skill in the art would not have been motivated to adapt the '752 patent according to the '587 patent.

In view of the foregoing discussion, the §103(a) rejection of claim 23 over the combination of the '752 and '587 patents is improper and Applicant requests that it be withdrawn,

#### **NEW CLAIMS 44-47**

New claims 44-47 (added by this reply) depend from claims 1, 24, 32 and 39, respectively, and are patentable at least for the same reasons, by dependency.

#### **CONCLUSION**

The issues in the case are considered to be resolved. Accordingly, Applicants request a Notice of Allowability.

**<Remainder of page intentionally left blank.>**


**Person to Contact**

In the event that any matters remain at issue in the application, the Examiners are invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-2025 for any additional fees under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

Nicos A. Vekiarides

By:   
Thomas S. Auchterlonie  
Reg. No. 37,275

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 8910  
Reston, VA 20195  
(703) 668-8000

TSA/let:tsa